



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,196	10/14/2003	Gary E. Georgeson	BOE 0437 PA	4179
27256	7590	03/21/2005	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH RD. SUITE 250 SOUTHFIELD, MI 48034			SUCHECKI, KRYSTYNA	
		ART UNIT		PAPER NUMBER
				2882

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/685,196	GEORGESON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Krystyna Susecki	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Specification***

1. The use of the trademark Delrin ® has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.
2. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Objections***

3. Claims 1, 2, 4 and 18 are objected to because of the following informalities:
4. Claim 1 does not have proper antecedence for “said foam material”.
5. In Claim 2, “right cylinders” are referenced. The specification indicates “light cylinders” are made of plastic, and this interpretation will be used for examination purposes with a note that “light” is a relative term with no ascertainable meaning with respect to the weight of the cylinders.
6. In claim 4, a trademarked material has not been properly noted as “Delrin™” or “Delrin®”.
7. Claim 18 should reference a “lead-in” surface.
8. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2882

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 2, 6, 7 and 9-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Karimi (US 6,813,374).

11. Regarding claims 1 and 15, Figures 2 and 6 of Karimi teaches a calibration device for a CT system (120), said device comprising a plastic housing (Column 10, lines 14-15) member having a predetermined size and shape to fit within the CT system, a foam core block member positioned in said housing member (Column 10, lines 14-59), and at least two plastic elongated rod members (Column 10, lines 28-41) positioned in said foam core member.

12. Regarding Claim 2, Karimi teaches the phantom as described in claim 1 wherein said rod members are light cylinders and are made of a plastic material (Column 10, lines 28-41).

13. Regarding Claim 6, Karimi teaches the phantom as described in claim 1 wherein said rod members each have a different length (Figure 6, at least Nylon and PVC).

14. Regarding Claim 7, Karimi teaches the phantom wherein said foam block has a longitudinal axis and said rod members are oriented in alignment with said longitudinal axis (Figure 6, at least items Teflon and PVC).

15. Regarding Claims 9 and 16, Karimi teaches the calibration device wherein said foam core member is positioned in a recess in said housing member and is removable therefrom. (Column 10, lines 14-27, teaches this since the components in the suitcase are interchangeable, and hence removable.)

16. Regarding claims 10, 11, 18 and 19, Karimi teaches the calibration device wherein said housing has a bull-nose or lead-in surface at one end adapted to facilitate passage through said

CT system and the calibration device wherein said housing has a bull-nose or lead-in surface at both ends [Figures 1-3 and 6 show a suitcase with rounded, lead-in or bull-nose surfaces.]

17. Regarding claims 12 and 14, Karimi teaches the phantom comprising at least one handle on said housing for manual movement and placement of said housing and a non-skid member on at least one surface of said housing. [Figures 1-3 show example suitcases, at least suitcase 112 having both a handle and “feet” (anti-skid surfaces).]

18. Regarding Claims 13 and 17, Karimi teaches the calibration device further comprising a removable cover member for holding said core member in said recess [The suitcases of Figures 1-3 have covers to enclose the core member].

***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karimi in view of Schulte (US 2005/0025280).

21. Regarding Claim 4, Karimi teaches a need to detect explosive materials and teaches the addition of materials to a phantom that simulates an explosive (Figure 6; Column 10, insert 7). Karimi also teaches the use of an aluminum rod (Figure 6).

22. Karimi fails to teach Delrin™ as a material for a rod member.

23. Schulte teaches Delrin™ as a material that simulates explosive material and that can be used as a discriminator to distinguish common materials from explosives (Paragraph 55).

Aluminum is used to help differentiate the cut-off between common and explosive materials (Paragraph 42 and Figure 9).

24. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to us Delrin™ as an phantom rod material since it could be used to distinguish between common materials and explosives (Schulte, Paragraph 55). Using a Delrin™ rod would improve the phantom of Karimi, since it would act in concert with the Aluminum rod and allow calibration for cut-offs between common materials and explosives (Schulte, Paragraph 42 and Figure 9).

25. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karimi and Schulte as above for Claim 4 and further in view of Quasar.

26. Regarding claim 3, Karimi in view of Schulte teaches that other suitable plastic materials can be used for the rods of Figure 6 (Karimi, Column 10, lines 14-27) and further teaches that the use of various other materials assists with the assessment of the X-ray spectrum of the device being calibrated (Karimi, Column 11, lines 51-52). As combined with Schulte, Delrin is another suitable test material.

27. Karimi and Schulte fail to teach the use of an acrylic rod member in the phantom.

28. Quasar teaches acrylic as a standard calibration material for phantoms (Pages 2 and 3). The acrylic is used for homogeneous density tests (Page 2).

29. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use acrylic as another plastic material in the system of Karimi and Schulte since it would allow the dual purpose of allowing further assessment of the X-ray spectrum of

the device being calibrated (Karimi, Column 11, lines 51-52) while also allowing homogenous density tests (Quasar, Page 2).

30. Claims 5, 8, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karimi in view of Jacobson (US 4,344,183).

31. Regarding claims 5, 8, 20 and 21 Karimi teaches a number of rod members positioned in a rectangular solid foam core member as above. Karimi also teaches a goal of ensuring a scanning process is progressing correctly with respect to phantom motion (Column 11, line 61- Column 12, line 48).

32. Karimi fails to teach five rod members as provided, nor does Karimi teach one of the rod members as positioned substantially in the middle of the core member and the remaining four rod members as positioned closely adjacent the four corners of the rectangular solid shape.

33. Jacobson teaches a central rod member surrounded by four rod members positioned to outline a rectangular solid shape for the purpose of assisting a calibration processor in determining if a phantom has been aligned properly during the calibration process and indicates if a scanning process is progressing correctly with respect to phantom motion (Figure 1 and Column 4, lines 17-54). Ideally, five rods are used to assist with measurements (Column 2, lines 38-49).

34. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the five rod orientation of Jacobson in the phantom of Karimi for the purpose of assisting a calibration processor in determining if a phantom has been aligned properly during the calibration process and for indicating if a scanning process is progressing

Art Unit: 2882

correctly with respect to phantom motion (Figure 1 and Column 4, lines 17-54). The five rod system could be used in concert with, or as replacement for, the progression testing members of Karimi.

***Conclusion***

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Susecki whose telephone number is (571) 272-2495.

The examiner can normally be reached on M-F, 9-5.

36. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

37. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WP  
ks

*Craig E Church*

Craig E. Church  
Primary Examiner